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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/839,716	04/20/2001	Masaaki Yokoyama	262/010	2767

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EXAMINER
ROCHE, LEANNA M

ART UNIT	PAPER NUMBER
1771	7

DATE MAILED: 11/29/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/839,716	YOKOYAMA ET AL.	
	Examiner	Art Unit	
	Leanna Roche	1771	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____ .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-8* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-8* is/are rejected.

7)☒ Claim(s) *1 and 6* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *2 and 6* .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Claim Objections

1. Claim 1 is objected to because of the following informalities: in line 5 of Claim 1, insert --to-- between "particles" and "one". Appropriate correction is required.

2. Claim 6 is objected to because of the following informalities: in line 2 of Claim 3, insert --the-- between "constituting" and "surface". Appropriate correction is required.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ito et al. (USPN 5476618) in view of JP 10-077359.

For the purposes of this rejection, USPN 6027806 and/or EP 0928806 have been relied upon as an English translation of JP 10-077359.

Ito is directed to a resin laminate comprising a base member 102, a foam layer 103 and a skin layer 105 all made of olefin resin (Figure 11 and Column 10, lines 19-27). The foam layer of Ito may be formed of an expanded bead foam. The glass transition temperature of foam layer 103 is from 140-160°C, and the glass transition temperature of skin layer 105 is from 160-170°C.

While the foam layer of Ito may be an expanded bead foam, it does not exhibit the specific structure and properties claimed by Applicant. JP'359, however, is directed to an expanded bead resin molded material produced by fusion bonding thermoplastic expanded resin beads, the thermoplastic expanded resin beads comprising a core of crystalline thermoplastic resin in an expanded state and an ethylene-based resin coat covering the core. The ethylene-based coat usually has a melting point of not more than 125°C. The ethylene-based coat is in a substantially unexpanded state. The ethylene-based coat contains an ethylene-based polymer which shows substantially no melting point, or which is lower in melting point than the crystalline thermoplastic resin core. JP'359 states that their expanded resin beads are "capable of lowering the molding temperature in production of in-molded articles", and their "expansion molded articles are phenomenally improved in mechanical and thermal properties". Therefore, it would have been obvious to the skilled artisan at the time this invention was made to combine the teachings of Ito and JP'359, motivated by the desire to produce a molded resin laminate with reduced molding temperatures and improved mechanical and thermal properties.

Neither Ito nor JP'359 specifically disclose the compressive hardness value or the void fraction value of their expanded bead resin foams. However, it appears that expanded bead resin foam of Ito in view of JP'359 is substantially identical to the presently claimed foam layer because both are comprised of a core comprising a crystalline thermoplastic resin in an expanded state and an ethylene-based polymer coat in a substantially unexpanded state, the ethylene-based polymer being lower in

melting point than the core resin or which having substantially no melting point. Thus, it is believed by the examiner that expanded bead resin foam of Ito in view of JP'359 inherently possesses a compressive hardness and a void fraction within Applicant's presently claimed ranges. Additionally, the presently claimed compressive hardness and void fraction would have obviously been present once the expanded bead resin foam of Ito in view of JP'359 was provided.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Abe et al. (USPN 6027806) and EP 0928806 are English equivalents to JP 10-077359.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leanna Roche whose telephone number is 703-308-6549. The examiner can normally be reached on Monday through Friday from 8:30 am to 6:00 pm (with alternate Mondays off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on 703-308-2414. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.